

REMARKS/ARGUMENTS

Prior to this Amendment, claims 1-24 were pending in the application. Independent claims 1, 8, and 20 are amended to clarify that in response to a user selection of the “node” port information for the node is displayed. Claim 8 is further amended to specify that the port information for the node’s ports comprises a port number and a port connection type indicator (with claims 10 and 11 being canceled). Claim 20 is further amended to call for the port information to include an indication of the ports having actual connections and the ports having no connection (i.e., which ports are in use and which are available). The art of record fails to show displaying port information for a node in response to a user selecting the connection device or node, fails to show that displayed port information may include port connection type indicators, and fails to show displaying port information for unconnected or available ports.

Claims 25-29 are added to better protect features of the invention not shown in the art of record. Specifically, independent claim 25 calls for the port information displayed in an expanded view of a device node to be in locations in the expanded view that indicates the relative position of the network devices connected to each port. This feature of the invention is not shown the cited art, but it is useful for enabling a user of the display method to quickly identify which ports of a connection device are connected and to which network devices.

No new matter is added by the claim amendments with support found at least at line 21, page 5 to line 23, page 6 of Applicants’ specification with reference to Figure 4. Claims 1-9 and 12-29 remain for consideration by the Examiner.

Oath/Declaration Objections

In the March 18, 2004 Office Action, the oath or declaration was found to be defective for failing to provide the city and state or country of residence of each inventor and for failing to provide a mailing address of each inventor. The Office Action noted that this information could be provided on an application data sheet.

With the initial filing of the application, a declaration for use with an application data sheet was filed that provided the two inventors’ names and citizenships. Also, an application data sheet according to 37 CFR 1.76 was provided with the declaration and is attached to this Amendment for completeness. Applicants believe the information required for declarations was provided in this data sheet including the inventors’ residence and mailing information

(see, for instance, the filing receipt which lists the inventors' residence information). However, if additional information is required, a supplemental declaration can and will be submitted by Applicants.

Drawing Objections

In the Office Action, the drawings were objected to because Figure 4 was not clear, (e.g., what does "310" point to?). Formal figures are presented with the Amendment, which clearly show all features of the originally submitted figures.

Specification Objections

The Office Action also objected to an informality in the specification. An amended paragraph is submitted with this Amendment to correct the typographical error.

Rejections Under 35 U.S.C. § 102

Additionally, the Office Action rejected claims 1-4, 7-11, 14, 15, and 18-21 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,594,696 ("Walker"). This rejection is respectfully traversed based on the following remarks.

As discussed in the Background of the Invention, embodiments of Applicants' invention addresses the problems associated with prior network topology displays; namely, these prior displays did not show port information associated with particular connection devices. Often, this was because it would require too much screen space to show information in a useful manner for all the ports of a device, such as a switch, hub, or router.

To address this problem, the method of claim 1 comprises displaying a device node in a network topology. The device node has one or more connection ports. The method continues with selectively expanding the displayed device node in response to "a user selection of the device node." The expanded node includes "**port information for each of the one or more ports having a connection to another device in the network.**" Hence, the method calls for a user to select the node and then, the node to be expanded to include port information for each port that is connected to a network device in the displayed topology. Because Walker fails to teach each of these elements of the method, the rejection under 102 of claim 1 is not adequately supported and should be withdrawn.

More particularly, the Office Action cites Walker at Fig. 4, col. 8, lines 19 through col. 9, line 33 for teaching every element of the method of claim 1. However, Walker at

Figure 4 and supporting text teaches a user selecting a link (or connection path as called for in claim 1) and then, displaying information for or regarding the link. The link information may include which port number the link is connected to but does not teach displaying port information for a selected node (such as "S1000" in Figure 4) for each and every port that is connected. Instead, Walker only teaches displaying a name of the node underneath the node (i.e., "S1000-1-72" as shown in Figure 4). In practice, from the teaching of Walker, a user would have to select each link (assuming all are shown in the display which is often incorrect) to obtain the connected port information for a device node. The information would not remain displayed, though, so the user would be forced to write down the information as they walked through a network topology. Hence, Walker fails to teach the convenient method of claim 1 for displaying port information for a selected node for the ports in the node that are connected to other network devices in a topology, and claim 1 is in condition for allowance.

Claims 2-4 and 7 depend from claim 1 and are believed allowable as depending from an allowable base claim. Additionally, claim 4 calls for the port information to include "a port connection type indicator" (such as an "E" type port as shown in element 316 of Applicants' Figure 4) and such port information is not shown or suggested by Walker. The Office Action cites Walker at Figure 4 and col. 5, lines 23-39 for teaching displaying port connection type indicators associated with nodes. As discussed with reference to claim 1, Figure 4 of Walker shows a name of a node and link information, which includes a port number and link type. There is no teaching of an indicator of a port connection type as called for in claim 4 (and the link information also fails to include a type indicator for ports connected to the link). For this additional reason, the 102 rejection of claim 4 is not supported and should be withdrawn.

Independent claim 8 is directed to a method with similar limitations as claim 1, and the reasons for allowing claim 1 over Walker are equally applicable to claim 8. Additionally, claim 8 calls for the displayed port information to include a port number and a port connection type indicator. As discussed with reference to claim 1, Walker fails to teach displaying any port information when a node is selected and instead, only teaches displaying the node name. Further, as explained with reference to claim 4, Walker does not teach displaying port type indicators as part of the label for the node or even as part of the link information displayed when a communication link or connector is selected. Hence, the rejection of claim 8 based on Walker is not supported and should be withdrawn. Claims 14,

15, 18, and 19 depend from claim 8 and are believed allowable as depending from an allowable base claim.

Independent claim 20 is directed to a computer readable medium with limitations similar to claim 8 and is believed allowable at least for the reasons for allowing claim 8. Additionally, claim 20 calls for the port information displayed when a node is selected to include “an indication of the ports having an actual connection to another device in the network and the ports having no connection.” As noted with reference to claims 1 and 8, Walker fails to teach displaying any port information when a node device is selected. Further, the limited port information displayed when a connection path or link is selected (such as a port number in Figure 4) does not include, or suggest inclusion of, “an indication of the ports having actual connection to another device” and an indication of the ports that have no connections. A user of the medium of claim 20 can readily understand which nodes are connected (or in use) and which are still available on the device. Because this information is not displayed in Walker, Walker fails to anticipate each and every limitation of claim 20 and the rejection should be withdrawn. Claim 21 depends from claim 20 and is believed allowable as depending from an allowable base claim.

Rejections Under 35 U.S.C. § 103

The Office Action rejected claims 5, 6, 12, 13, 23, and 24 under 35 U.S.C. 103(a) as being unpatentable over Walker in view of U.S. Patent No. 5,261,044 (“Dev”). This rejection is respectfully traversed based on the following remarks.

Claims 5, 6, 12, 13, 23, and 24 depend from independent claims 1, 8, and 20 and are believed allowable as depending from an allowable base claim. Further, Dev fails to overcome the deficiencies of Walker. Specifically, Dev does not teach or suggest that port information is displayed when a node is selected or that such port information may include a port type indicator or that it may include information on which ports are in use and which are not for a node device. Dev is cited in the Office Action for teaching a connection bar and selecting icons to display information. However, Dev fails to teach displaying port information with reference to a selected node, and clearly, fails to teach the use of an expanded view of a node within a displayed network topology. In contrast, Dev teaches displaying full screen maps or displays to show information (see, for example Figure 7C or 8A in which full screen shots are used to display network maps). Hence, the combination of

Walker and Dev fails to teach or suggest the method and computer medium of claims 1, 8, and 20.

The Office Action cites Dev for teaching the limitations of claims 6 and 13 including displaying the port information in a location indicating relative location of corresponding connected devices. However, Dev only teaches full maps in Figures 7A-8B (cited by the Examiner). Dev fails to teach an expanded view of a node that includes information positioned in locations within that expanded view to provide an indication of which device the information relates to based on that device's position in a concurrently displayed topology. In other words, with reference to Figure 7C (for example), Dev fails to teach that any of the information within the subdisplays 320, 322 includes information that is positioned within that subdisplay 320, 322 that relates to other devices shown in the full display 318. Hence, the methods of claims 6 and 13 are not shown by Walker or Dev, and the rejection should be withdrawn.

New claim 25 includes limitations similar to dependent claim 13 and is believed allowable over the combination of Walker and Dev for the reasons provided for claim 13. Neither Walker nor Dev teach or suggest positioning port information in a location within an expanded view of a node to provide a viewer with a quick visual indication of where in the concurrently displayed network topology a device connected to the port corresponding to the information is located. Hence, claim 25 is believed allowable over Walker and Dev. Further, the combination of this selective locating of port information and the use of elevations as claimed in claim 26, which depends from claim 25, is not shown by these references and aids in assisting a user identify and match port information with devices connected to such ports. Claim 27 is believed allowable additionally for the reasons provided for allowing claim 20 as showing port information for all ports on a connection device. Claim 28 calls for the port information to include port type and port state, neither of which is taught by Walker. Claim 29 calls for the port information to comprise a set of information that is selected by a user. For these additional reasons claims 26-29, which depend from claim 25, are allowable over Walker and Dev.

Conclusions

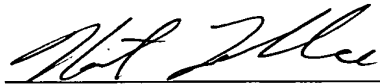
The additional references cited in the Office Action but not relied upon have been reviewed but are believed to be no more relevant than Walker and Dev. The pending claims are believed allowable over these references considered individually or in any combination.

A check is provided for the fee associated with adding new claims. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Applicants respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Attachments: (1) Replacement Sheets
(2) Originally Submitted Declaration and Application Data Sheet